

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-86

Effective March 1, 2002  
Revised January 1, 2004

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

**Instaloc Panels (24 gauge)** manufactured by

**Architectural Building Components**  
**11625 N. Houston Rosslyn Rd.**  
**Houston, Texas 77086**  
**Telephone: (800) 423-1105**

is acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

Architectural Building Components Instaloc roof panels are cold formed coated steel in a 24 gauge thickness. The panel conforms to AZ 55 Grade with a minimum 50,000 psi yield strength. The panels are manufactured in a 13-inch net coverage width with an integral 1" snap together seam.

## LIMITATIONS

**Design Wind Pressures:** For installations to nominal  $\frac{15}{32}$ " wood structural panel decks, design wind pressure limitations are specified in Table 1.

**Installation Over an Existing Roof Covering:** Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing. If the roof panels are attached directly to the roof deck, then the existing roof deck shall be nominal  $\frac{15}{32}$  inch wood structural panels. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed.

**Roof Slope:** The Instaloc panels shall not be installed on roofs with a roof slope less than 3:12.

## INSTALLATION INSTRUCTIONS

### General Installation Requirements:

The installation of the panels shall be limited to extending one to two inches beyond the plane of the fascia board.

### Panel Installation Requirements

**Panels:** Panels shall be attached to the roof deck using 24 gauge steel Instalock Clips with fasteners in accordance with Table 1. Refer to Figures 1 through 4 in this evaluation report for installation details.

**Table 1**

Attachment of 24 gauge Instaloc Roof Panel to nominal  $\frac{15}{32}$  inch wood structural panel roof decking:

Wind Pressure (psf)	Attachment of Instalock Clip to $\frac{15}{32}$ " thick plywood deck
-72.5	(2) #10-12 x 1" Type A @ 2'-0" o.c.
-92.5	(2) #10-12 x 1" Type A @ 1'-6" o.c.
-112.5	(2) #10-12 x 1" Type A @ 1'-0" o.c.

**Underlayment:** A minimum of one layer of No. 30 (Type II) asphalt felt shall be used. The underlayment used shall comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt shall be installed with 6 inch side laps and 3 inch end laps. The felt shall be fastened to the roof deck with an adequate number of galvanized fasteners to hold it in place until the panels can be installed (no specific fastener size or cap requirements). Note: An optional radiant barrier may be installed beneath the panels in conjunction with the underlayment.

**Anchorage:**

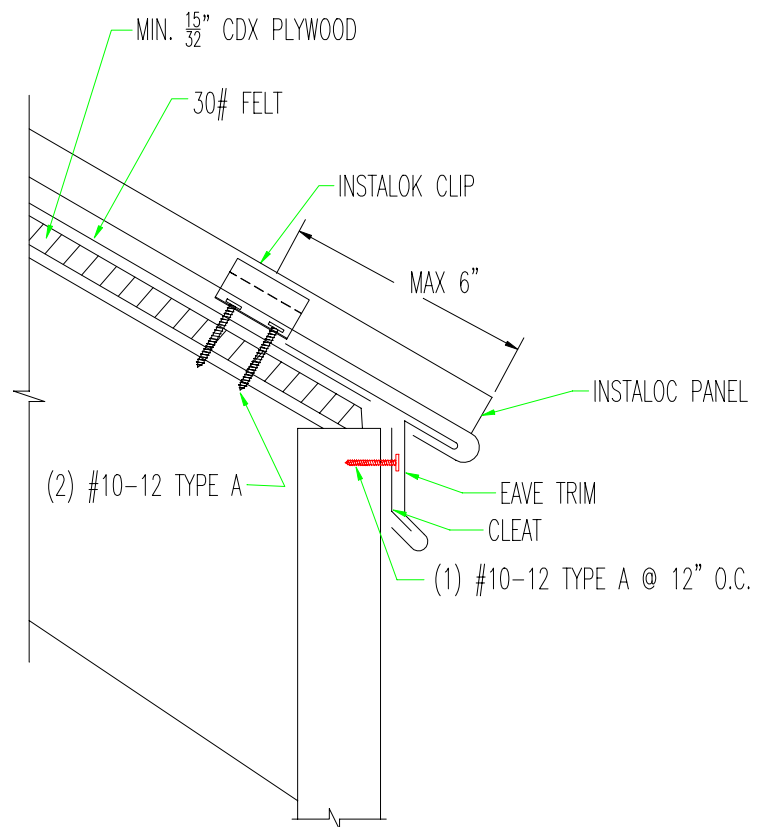
**To Roof Decking:** The panels shall be secured to the roof deck using 24 gauge steel Instalock Clips with (2) #10-12 x 1 inch Type A Pancake Head screws, manufactured by Construction Fasteners, Inc. The Instalock Clips shall be spaced as specified in Table 1. If the panels are laid directly over an existing roof covering, then #10-12 x 2 Type A Pancake Head screws are required. The fasteners shall be long enough to penetrate completely through the wood structural panels with a minimum exposure of  $\frac{1}{4}$  inch below the underside of the wood structural panels.

**Ridge Cap and Rake Trim:** The ridge cap and the rake trim shall be attached to the panels as indicated in Figure 1 through Figure 4.

**Alternative Fasteners:** Substitution of equivalent fasteners shall meet the following requirements:

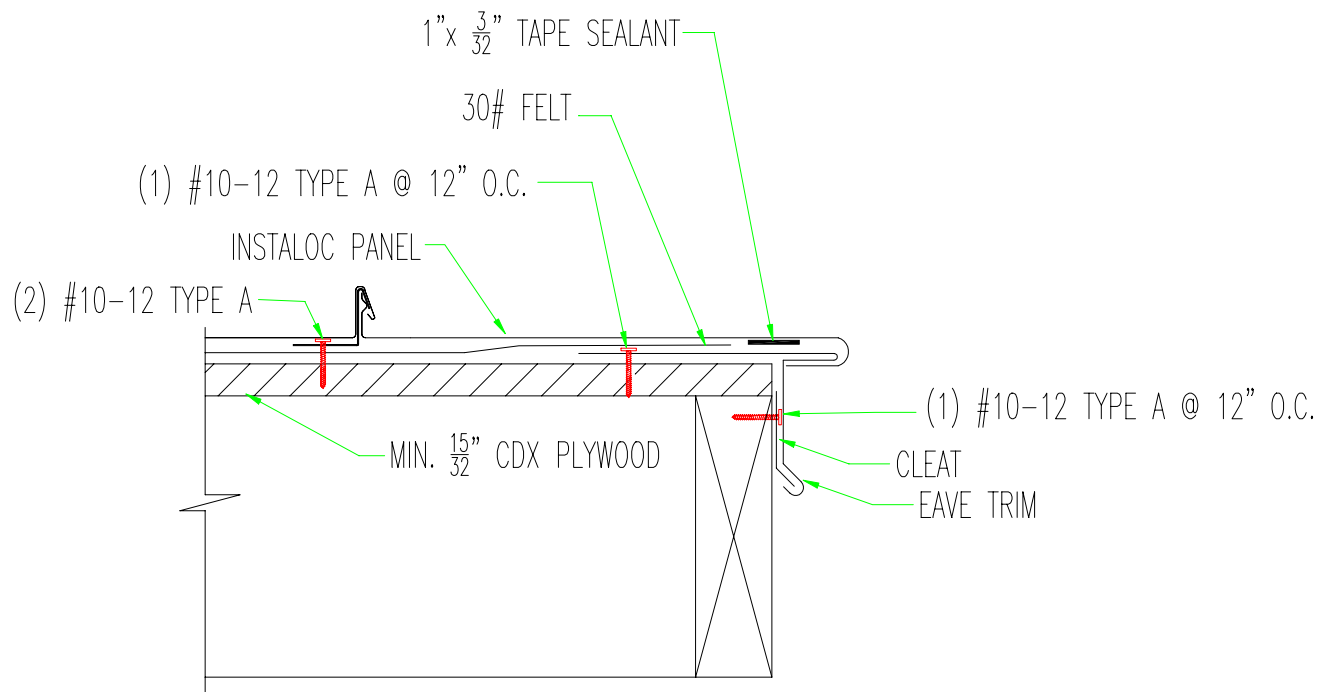
#10-12 Type A Pancake Head screws, manufactured by Construction Fasteners, Inc.  
Ultimate withdrawal (pullout)  $\geq$  339 lbs. in  $\frac{15}{32}$  inch plywood

**Note:** The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).



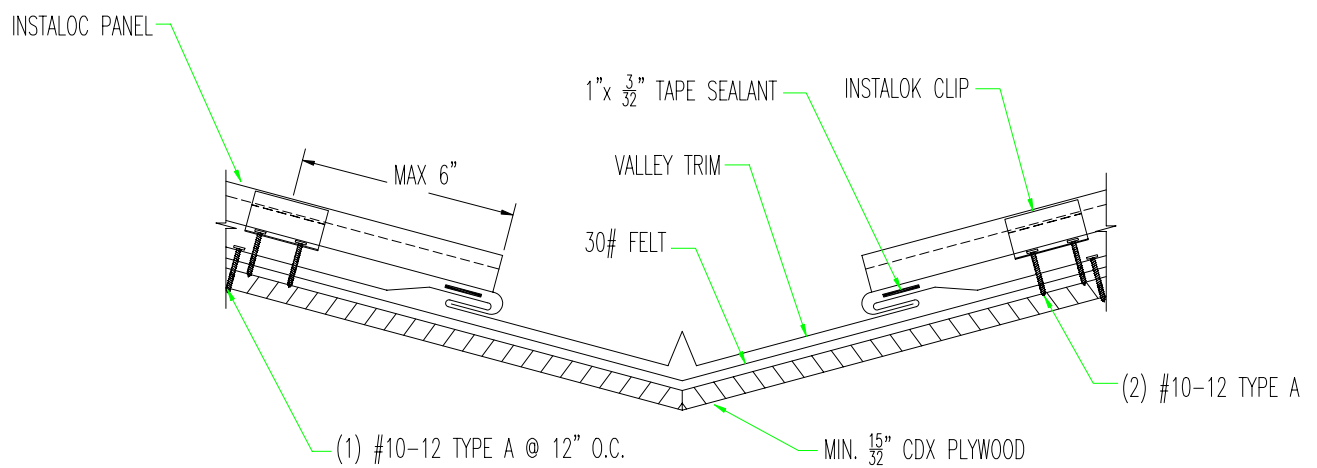
NOTE:  
NOTCH SEAM BACK  $\frac{7}{8}$ "  
AND FOLD PAN AROUND  
EXTENDED EAVE.

Figure 1: Instaloc Panel Eave Detail



NOTE:  
FIELD CUT PANEL TO CORRECT  
WIDTH, FOLD AROUND RAKE TRIM.

Figure 2: Instaloc Panel Rake Detail



NOTE:  
FIELD CUT PANEL TO VALELY ANGLE,  
NOTCH SEAM BACK  $\frac{7}{8}$ ", FOLD  
PANEL END INTO VALLEY HEM.

Figure 3: Instaloc Panel Valley Detail

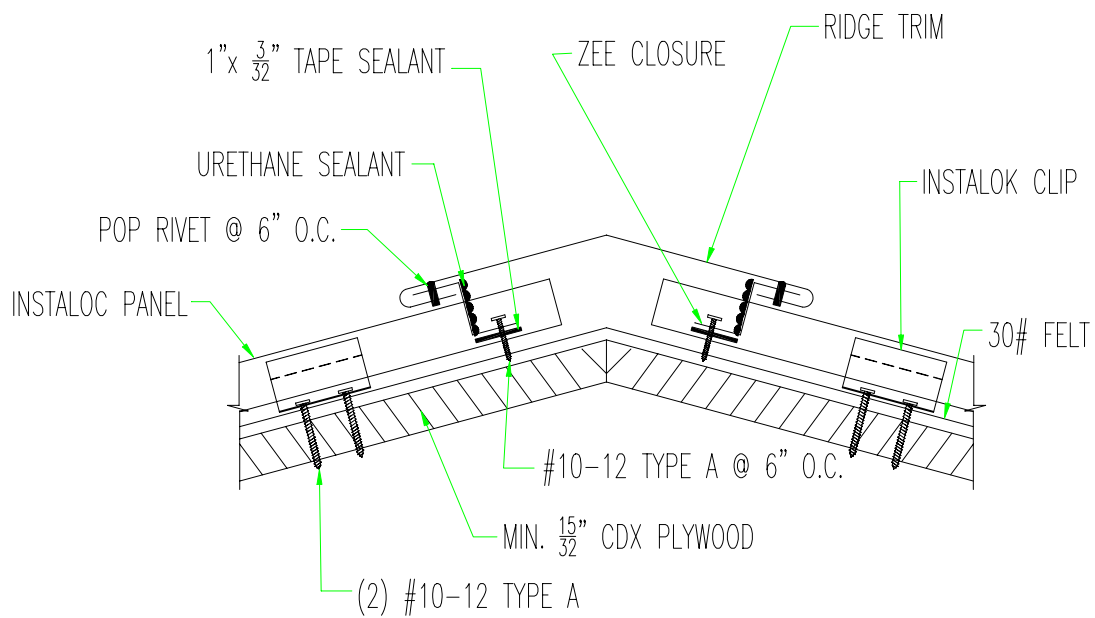


Figure 4: Instaloc Panel Ridge Detail